# GLOBE DISTRICT

## WINTER STORM MANAGEMENT GUIDELINE

# 2006/2007

**ARIZONA DEPARTMENT OF TRANSPORTATION**

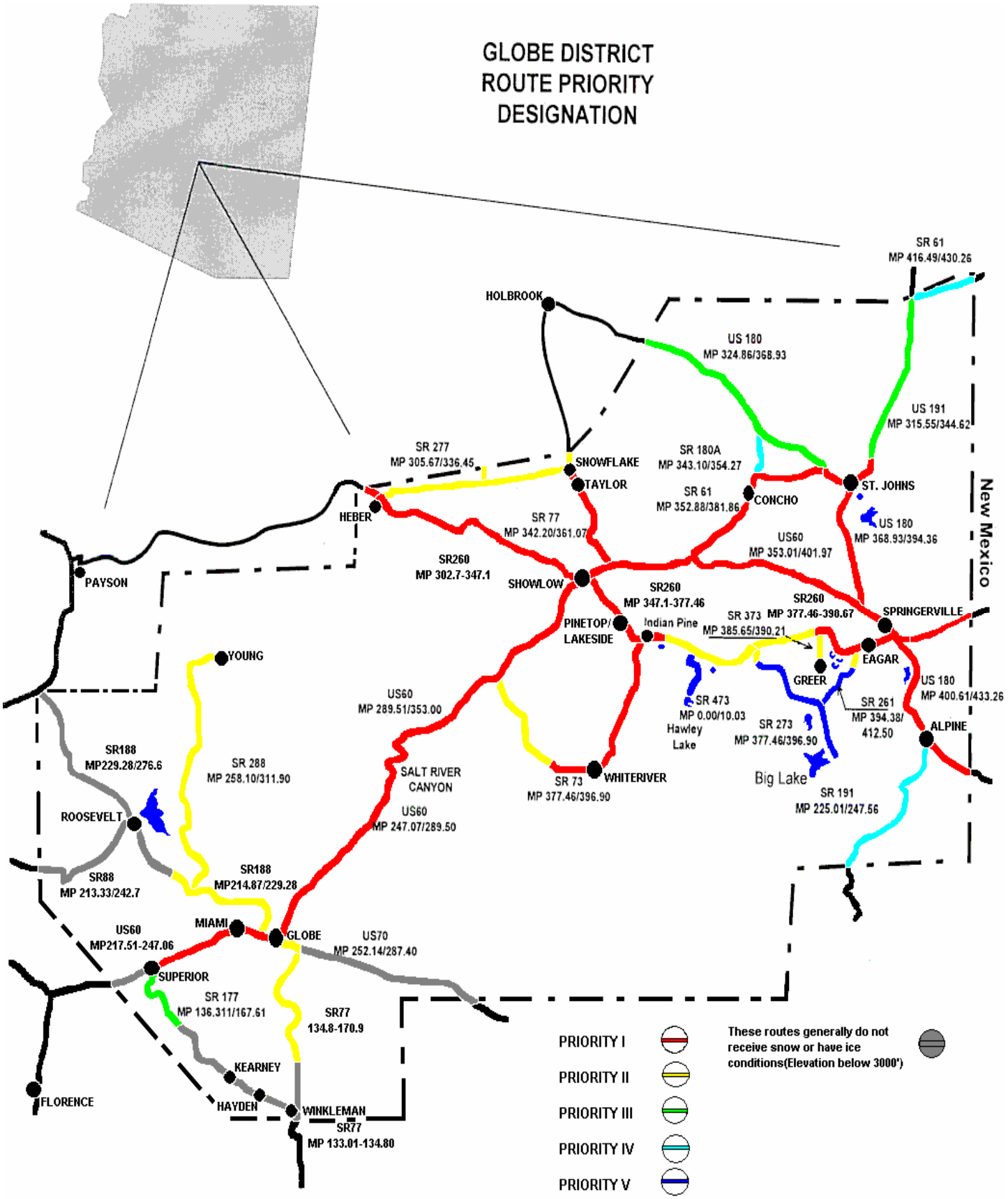
**INTERMODAL TRANSPORTATION DIVISION**

# INDEX

# GENERAL

**The purpose of winter storm maintenance is to provide as safe and reliable travel surface as possible, utilizing the available resources as needed and where needed.**

**Actual use of personnel, equipment, de-icing agent and abrasives may vary from storm to storm, in order to optimize resources.**


GLOBE DISTRICT
ROUTE PRIORITY
DESIGNATION
SR 61
MP 416.49/430.26
HOLBROOK
US 180
MP 324.86/368.93
US 191
MP 315.55/344.62
SR 277
MP 305.67/336.45
SNOWFLAKE
TAYLOR
SR 180A
MP 343.10/354.27
ST. JOHNS
SR 61
MP 352.88/381.86
CONCHO
US 180
MP 368.93/394.36
HEBER
SR 77
MP 342.20/361.07
US60
MP 353.01/401.97
New Mexico
PAYSON
SR260
MP 302.7-347.1
SHOWLOW
SR260
MP 347.1-377.46
SR260
MP 377.46-398.67
SPRINGERVILLE
PINETOP/
LAKESIDE
Indian Pine
SR 373
MP 385.65/390.21
EAGAR
YOUNG
GREER
US 180
MP 400.61/433.26
US60
MP 289.51/353.00
SR 473
MP 0.00/10.03
Hawley
Lake
SR 261
MP 394.38/
412.50
ALPINE
SR188
MP229.28/276.6
SR 288
MP 258.10/311.90
SALT RIVER
CANYON
SR 273
MP 377.46/396.90
SR 73
MP 377.46/396.90
WHITERIVER
Big Lake
SR 191
MP 225.01/247.56
ROOSEVELT
US60
MP 247.07/289.50
SR88
MP 213.33/242.7
SR188
MP214.87/229.28
MIAMI
US60
MP217.51-247.06
GLOBE
US70
MP 252.14/287.40
SUPERIOR
SR 177
MP 136.311/167.61
SR77
134.8-170.9
KEARNEY
FLORENCE
HAYDEN
WINKLEMAN
SR77
MP 133.01-134.80
PRIORITY I
PRIORITY II
PRIORITY III
PRIORITY IV
PRIORITY V
These routes generally do not receive snow or have ice conditions(Elevation below 3000')

## Statewide Priority in allocation of snow and ice control resources will be as follows:

**I. Interstate highways, freeways, and other highways carrying over 3500 ADT**

- **Highways carrying over 3500ADT and/or having great economic importance to the local community.**
- **Snowplowing and anti icing efforts will be ongoing or until they become ineffective at which time abrasives will be applied to improve traction**
- **These routes are to be maintained at the highest level practical within the given resources available.**
- **Anti and De-icing efforts will continue until near normal surface conditions are restored.**

**II. Highways carrying 1000 to 3500 ADT**

- **Highways carrying 1000 to 3500 ADT or highways in extreme climate areas that are required to be open year round.**
- **These roads will receive coverage during storms, or during drifting conditions or when the road conditions require tire chains or four wheel drives.**
- **Snowplowing and anti icing efforts will be ongoing or until they become ineffective at which time abrasives will be applied to improve traction.**
- **Anti and De-icing efforts will continue until near normal surface conditions are restored.**

**III. Highways carrying less than 1000 ADT**

- **These roads will normally receive coverage during storms or drifting conditions, as resources are available.**
- **Snowplowing and anti icing efforts will be ongoing or until they become ineffective at which time abrasives will be applied to improve traction These efforts will normally be limited to daytime coverage.**
- **In the case of extreme weather conditions, where additional coverage is required to keep the route open, this coverage may be extended if resources are available.**
- **These routes may be closed until storm passes if resources are required to keep priority I and II routes open. If closed the route will be patrolled and inspected per these guidelines.**

**IV. Highways that have very low ADT.**

- **Provide no maintenance service during the storm and plow snow only during regular working hours.**
- **These routes will be patrolled and inspected per these guidelines when closed.**

**V. Highways that are seasonal routes.**

- **They are to be closed for the winter and patrolled and inspected per these guidelines when closed.**

**ORG's, and Districts will include snow and ice control work in their annual work program for those highways subject to winter storms.**

**Globe District will be responsible for determining when snow and ice control operations are to commence. We will monitor weather forecasts, weather conditions, and road conditions. We will alert crews and commence operations based on storm event and available resources. We will utilize existing processes and policies to ensure response to weather related issues.**

**BASED ON AVAILABILTY OF RESOURCES, PRIORITY IN OPERATIONS WILL BE GIVEN TO:**

**First priority**

- **Pre-treating roadways with anti-icing agents prior to storm event.**
- **Applying anti-icing agents on priority 1&2 routes.**
- **Regulating snow and ice control warning signs and devices. This includes permanent VMS in Show Low, Globe and near Florence Jct.**
- **Keeping the highway open and traffic moving; even if at a greatly reduced speed.**
- **Keeping priority 1 & 2 roadways open with one lane in each direction.**

**Second priority**

- **Keeping all traffic lanes open and traffic moving.**
- **Address snow-pack and icy spots utilizing available resources on priority 1 & 2 roadways including de-icing techniques to eliminate snow pack and icy spots.**

**Third priority**

- **Clear and re-open any priority 3 & 4 roadways as resources become available.**

**Forth priority**

- **Plowing snow from breakdown lanes, shoulders, and rest area roadways and parking areas.**
- **De-ice any remaining snow pack and icy spots and monitor drifting areas until condition is resolved.**

**Fifth priority**

- **Removing snow windrows from urban areas and sidewalks.**

**Resource availability does change throughout the year due to loss of employees and equipment. This guideline will be updated annually.**

# GLOBE DISTRICT WIDE WINTER MAINTENANCE GUIDELINES 2006-2007

## GENERAL

While snow and ice control operations will usually be continuous from the start of a storm until further work is unnecessary, SAFETY concerns such as reduced visibility or operator fatigue may mandate stopping or reducing work.

Specific highways may be designated closed for the winter season, closed during the hours of darkness, closed on week ends by the District Engineer and no snow and ice control operations performed on them during the storm event.

### 1. Bridges

- Bridges are one of the first spots to develop ice. Best practice is to apply treatment early on in a storm event and keep refreshed as needed.
- Pre-treat prior to storm events. 20 gallons per lane mile is recommended. (If precipitation in the form of rain occurs prior to freezing this application will need to be enhanced with granular)

### 2. Curb/Gutter and Sidewalk Sections

- When pushing snow from curb and sidewalk, use extreme caution and slower speeds.
- Things to remember are down drains, driveways and obstruction directly behind sidewalk and manhole covers.
- Care must be taken around parked cars on the curb or in driveways.
- Checking of corner bits must be done regularly and do not run against the curb constantly since this will wear the corner bits out very quickly and damage the concrete. Stay just off the curb or gutter by bumping and then moving just away from it.
- Watch for pedestrians.
- Watch and know where landscape features are and avoid them.
- Learn and know where curb or gutter sections begin, end or change height.

### 3. Travelers' Accidents

- During a storm event when encountering an incident involving a public vehicle (i.e. wreck, slide off, or rollover), the operator should make a decision as to what action to take, whether to call in the accident and keep going, or stop and assist. This decision should be based on the current conditions of the roadway surface and severity of the storm and the accident at the time.
- Always call Snow Desk/TOC to confirm it has been reported to DPS.

- DO NOT push or pull any private vehicle. This puts both you and the department at risk.
- Keeping the roads passable is your primary function.
- Responding to emergency calls from law enforcement, operators must keep their primary goal in mind.
- When responding to these calls do all you can to reduce the time away from your primary function of keeping the roads passable.
- Clean up the location and apply abrasives and/or de-icers as quickly as possible.
- Assist only as long as absolutely required to get the area secured and then return to your primary function.

**4. Spreader Box Heaters**

- When using deicing agents, exhaust heaters should be disconnected from v-box spreaders.

**5. Spreader Box Care**

- When backing use extreme care and be aware of hazards, the boxes can be bent from hitting stockpiled material, snow banks or other obstructions easily.
- Don't overload; the material is wasted that falls off the sides and can cause damage to passing vehicles or pedestrians.
- Operators need to know the weight of the material being loaded so as not to overload the truck.

**6. Winter Storm Patrol**

- Storm patrol throughout the district should be minimized with the technology we have at our disposal.
    - NWS web site / RWIS (http://162.59.38.246/wxscene.php) / Radio communication Org to Org and District to District / HCRS / Visual Observations / Local and statewide forecasts.
- In the case storm patrol is required, just as in plowing operations this needs to be coordinated district wide.

**7. Lead Person/Shift Leader Role During Winter Maintenance Activities**

To support the Org in every capacity that is needed which would include the following:

- Making sure that there is coverage on both shifts for snow removal.
- Operating a snowplow and filling in for crewmembers who are off on leave or otherwise not available.

- Making sure all org personnel, including him/herself are available for plowing before borrowing from other orgs.
- Giving guidance as requested or needed.

## 8. Snow Removal District Wide

In case of extreme weather conditions where additional coverage is required to keep priority highways open, this coverage may be extended to the use of additional plow drivers from other orgs.
These drivers can be directed by their supervisor, shift leader or the Snow Desk to report to the given orgs for support.
The orgs responding first should be the orgs that have the least snowfall for their area or their priority routes are clear.

- All plows shall be dressed district wide when weather forecast is widespread with significant accumulation or duration and additional resources may be required.

## 9. On the Job Training for Snow Plow Drivers

To train the new snowplow driver, the trainees should ride a full snow shift with an experienced plow operator. After this the trainee should demonstrate an adequate knowledge and understanding of the use of the plow, sander, and materials used during an average snow event. After which the trainee should be partnered with another experienced plow operator and allowed, under supervision, to operate in live conditions to learn as many different ways to combat winter conditions as possible.
To achieve this we must:

- Demonstrate the knowledge and skills for Dump Truck/Plow Operation
- Identify the personnel to be trained
- Have the supervisors support
- Trainees must be familiar with trucks
- Trainees must be flexible and self-starters

**NOTE:** Supervisor should also take full advantage of our Snowplow Simulator as another tool and training opportunity for new and novice operators. Seasoned operators can also utilize this training as a refresher and reminder of the risks and decision challenges they face in snow fighting efforts.

## 10. Abrasive Use

- Abrasives should only be used when conditions deteriorate to the point where the other snow/ice treatments are not effective or where alternative treatments are required per our statewide Environmental Assessment.
- Abrasives should be used as needed to aid traction when deicing agents become ineffective.

- Generally, the use of abrasives should be applied to improve traction on hills, curves, and stopping/starting areas when de-icing agents have become ineffective.
- Do not use abrasives and then plow the abrasives back off the highway.
- Spinner speed and shields shall be adjusted to keep the material where it is needed.
- Consideration shall be given to the effect of application to on-coming traffic when applying abrasives.
- When pavement temperatures lower to 15 degrees Fahrenheit and under most de-icing agents may begin to lose their effectiveness. At this point operators immediately need to notify the supervisor or shift leader in determining abrasive usage and applicable application rates.

### 11. Truck Vibrator Use

- Truck dump-bed vibrators can be used to help minimize the sticking of material to the inside of the spreader.

### 12. Tree Removal for De-icing

An often over-looked area is the use of sunlight and heat in nature to help thaw a roadway.

- Every operator should identify areas on routes where shade from trees is keeping ice or snow on the road surface.
- Trees that are identified shall be trimmed and/or removed back far enough to allow sunlight to reach the road surface.
- Working with the land managing agencies and our Natural Resource group to identify and accomplish this will be an ongoing effort.

### 13. Snow Desk

- Snow Desk can be used when predicted storm would be widespread with significant accumulation or duration and additional resources may be required.
- The “Snow Desk” shall be in Show Low and/or Globe and the AA’s shall be used when a ”Snow Desk” is needed.
- Snow Desk will require 24 hour coverage or until the event is over. Personnel should be familiar with all routes and resources.
- Operators will be responsible to call in hourly or if conditions change dramatically to Snow Desk/TOC and Snow Desk can reassign resources if needed.
- The Snow Desk will keep TOC informed.
- Other events shall be handled by the individual orgs.
- The Snow Desk will activate additional resources when needed as directed by the supervisor/shift leader.

## 14. Accountability

Each individual operator is responsible for ACCURATE reporting of routes and milepost covered, materials used, miles plowed. An individual card will be made for each route covered and times of coverage should be put in comments, (i.e. RT 260 from 07:00-08:30 MP**-MP**; RT 373 08:30-09:00 MP**-MP**). This will assure documentation of location/time of coverage. Operator will be held accountable for all reporting.

**Example:** Someone is patrolling 60 from Springerville to the 60/61 Y, then that person could overlap and go on into Show Low. If and when this occurs the operator will report the milepost where they turned around even though it is in another orgs area. The PeCoS system allows for overlap on all 170 Activities.

## 15. Shifts

- Shifts shall change between 6-8am and 6-8pm to ensure resource support is not disruptive to the District Wide effort. Alternate schedules may be warranted to address localized traffic movement.
- This will ensure that adequate coverage is maintained at times when school buses are running.
- This will also ensure that there is no lapse in coverage due to shift change during high volume traffic times.
- Crew Leaders will be responsible for calling resources needed to ensure 30-45 minute turn around for proper coverage of all Routes.

## 16. Temp Sensors

Each plow truck is equipped with a temperature sensor capable of reading ambient and roadway surface temperature. These temperatures are critical in the application of de-icing agents and shall be monitored before and during a storm event to assist the plow operator in knowing when and what de-icing agents shall be applied to the roadway surface. De-icing agents applied at the correct time and temperature during the storm event will assist in preventing the freezing bond between the roadway and snow or ice.

(Also see **De-icer Application**)

## 17. After Storm Clean-Up

All equipment shall be cleaned after each storm event using either the org portable wash station, your local contracted washer or and approved car wash. This is to include all trucks, plows, loaders, etc. used in the handling of de-icing materials. Special care should be given to making sure the inside of all sander-spreader equipment is thoroughly cleaned. Drain and flush pump and spray nozzle assemblies. Inspect all equipment for correct operation, any signs of

metal fatigue, broken parts, and burned out lights. Lubricate parts and machinery as needed or required.

### 18. Equipment Care

Each snowplow operator shall complete the daily CDL Checklist for the equipment they are assigned during a storm event. Special care should be given to inspecting the plow and plow frame along with the sander and sander box plus the operation of the pre-wetting system. All plow bits shall be inspected thoroughly and measured with a tape measure to make sure the appropriate amount of carbon remains on the plow bit before the operator begins the shift and at intervals during the shift as appropriate. Changes plow blades when necessary.

Note:

New plow bits measure 5 inches in height and have approximately ¾" of carbon. Suggest changing at minimum 4 ¼ inches.

### 19. De-Icer Use

Dry De-icer application for Ice Slicer-100 to 300 pounds per lane mile.

- Suggested initial rate of 200 pounds per lane mile with 300 pounds on known trouble areas. (Shady or known cold spots, bridges).
- Apply granular when precipitation begins. Allow time for material to start working. (Activate).
- Pre-wetting material helps hold the material on the road surface and also reduces blow off of material by traffic movement.
- If re-plowing is needed, re-apply material between 100-200 pounds per lane mile or as solution dilution dictates.

### 20. Liquid De-icer application for Magnesium Chloride.

Pre-treating

- 20 gallons per lane mile on all routes as material is available.

Pre-wetting

- Suggested 7 gallons per ton to help ensure material stays on the roadway when applied.

### 21. Clothing

Operators shall dress appropriately for winter conditions.

- Keep your clothing in good repair (zippers, buttons, tears, faded color or reflective stripes). Loose and baggy clothing can catch on equipment causing falls.

- All protective PPE should be kept with you during snow fighting operations including (hard hat, safety vest, gloves, ear protection, safety glasses, steel toed shoes, high visibility reflective jacket or coat).

### 22. Climbing on or off Equipment and Mounting and Dismounting Procedures

As with all construction or maintenance equipment the three points of contact shall be maintained at all times when mounting, dismounting, climbing on or off equipment. The added hazard of snow and ice on the metal increases the need for proper safety precautions to be adhered to and practiced by all operators at all times. **There is NO EXCEPTION!** Safety is the way we work.

### 23. Calibration of dry and liquid spreaders

Each piece of snow fighting equipment shall be calibrated each year before the snow season starts. Each operator is accountable and responsible to know where to access the calibration sheet and monitor the equipment to ensure it stays calibrated through visual observations. Each operator will also know the process and steps involved to check the calibration to help ensure material is not wasted nor applied outside the acceptable practices and work quantities set.

### 24. Anti and De-Icer Applications

Every operator is accountable and responsible for applying and monitoring the use and effectiveness of the anti and de-icing agents. They shall apply these agents at the optimal times and in amounts as outlined within the plan and by the vendors to get effective and efficient results. They can utilize their shift leader, lead person and supervisor as a resource if any questions arise they need addressed during the course of applying these agents to keep the roadways open and safe to the prudent driver.

- Liquid anti icing agents will be used prior to the storm event to address know trouble spots when storm predictions dictate needed severity levels.
- Dry granules will be pre-wet to help optimize the results of application by helping the material stay on the paved surface.
- Agents should be applied near the crown or high side of the lane to optimize the treatment and reduce dilution effects as much as possible.

Each operator will know the optimal temperatures each type of agent is effective in.

### 25. Turning around

Do to the diverse geographical makeup of the Globe District; it is sometimes necessary to turn around where there are not designated pullouts. When an operator is faced with this it is paramount not to get stuck.

- Keep your truck as level as possible and stay out of areas with un-level grades.
- Widen areas of snow accumulation prior to attempting to turn around.

### 26. Private driveways

Do not plow private drives, driveways or business parking lots. These are the responsibility of the owners. **NOTE:** The only exception to this is if the need arises due to emergency or rescue operations.

### 27. Org boundaries

During snow fighting efforts Org boundaries become none existent.

- When an operator approaches a know boundary they shall contact the neighboring section to see if assistance is needed or required and proceed so service levels are equal throughout the district.
- Reporting shall be accurate according to where the operator turned around on any given route. See **14. Accountability**
- Operators should have clear direction from shift supervisor on how to handle boundary issues with neighboring Districts.

## DOCUMENTATION GUIDE FOR INSPECTION OF CLOSED HIGHWAY

**The inspection will be documented electronically on a completed Crew Work Report in the comments.**

**The documentation should include:**

**-Date of inspection**

**-Route inspected**

**-Beginning and ending mileposts**

**-Name of person(s) who made the inspection**

**-Results of inspection**

**A typical entry might read:**

**"Route 191 was inspected between MP 225 and 247.6 on 12/15/98 for stranded motorists. Two people were found at MP 230.1 and taken to Alpine. Snow depth averaged two feet with ten-foot drifts MP 228 to 246. Expect highway to re-open 12/16/98 in P.M. John Doe made the inspection."**

## CLOSURE AND INSPECTION PROCEDURES DUE TO SNOW STORM

When it becomes necessary to close and barricade a highway because of snowstorm conditions, the following steps must be taken:

**1.** The Department of Public Safety shall be notified IMMEDIATELY. Provide the affected route and milepost where the barricades are to be placed. Also notify the Superintendent, Regional Engineer and District Engineer, appropriate County Sheriff's Office, Central Maintenance and Traffic Operations Center in Phoenix (1-800-379-3701).

**2.** Coordinate closure with adjacent Highway Maintenance Supervisor's, if the affected length of highway involves more than one maintenance section or district so that both ends of the highway is closed as near simultaneously as possible.

**3.** Utilize Type III Barricades with flashing lights for closure points with appropriate advance warning signs.

**4.** After the closure has been completed, the entire length of closed highway must be inspected for stranded motorists as soon as possible. Any feasible means of transportation (snowplow, four- wheel drive vehicles, snowmobile, snow shoes, airplane, helicopter, etc.) should be used. Department of Public Safety and local law enforcement agencies may be contacted for assistance.

**5.** On lengths of highways where yearlong permanent residences exist or where other roadways access the closed portion of the highway additional inspections for stranded motorists may be conducted. Coordinated with the Department of Public Safety and/or local law enforcement agencies will be done to address any party that has ignored the posted closures on these routes.

**6.** All new or updated information on all road miles should be phoned or radioed to the District during normal working hours approximately every hour (every two hours at the minimum) during snowstorms. All information shall be updated on HCRS (Highway Closure Restriction System).

**7.** The inspection will be documented in writing on a completed Crew Work Report.

The documentation should include:

-Date of inspection

-Route inspected

-Beginning and ending mileposts

-Name of person(s) who made the inspection

-Results of inspection

A typical entry might read:

"Route 191 was inspected between MP 225 and 247.6 on 12/15/98 for stranded motorists. Two people were found at MP 230.1 and taken to Alpine. Snow depth averaged two feet with ten-foot drifts MP 228 to 246. Expect highway to re-open 12/16/98 in P.M. John Doe made the inspection."

## SR261/SR273/SR473 Winter Closure

1. **These routes will be inspected as described above when initially closed.**
2. **These routes will not be mechanically re-opened prior to May 1st.**
3. **Any stranded vehicles found after the initial closure will not be removed using ADOT forces. All removal will be at the expense of the vehicle owner. If it is necessary to remove the vehicle, a report will be submitted to Risk Management to charge the owners insurance.**
4. **Any person found stranded after the initial closure would be transported to safety and documentation done.**
5. **Due to these routes being accessible by Forest Service routes, positive barriers will not be placed across the routes so vehicles can get out in the event they come in a back way.**

## MISCELLANEOUS ROAD CLOSURES

**At ORG locations where a road closure is required, at least two type three barricades with lights and flags shall be placed.**

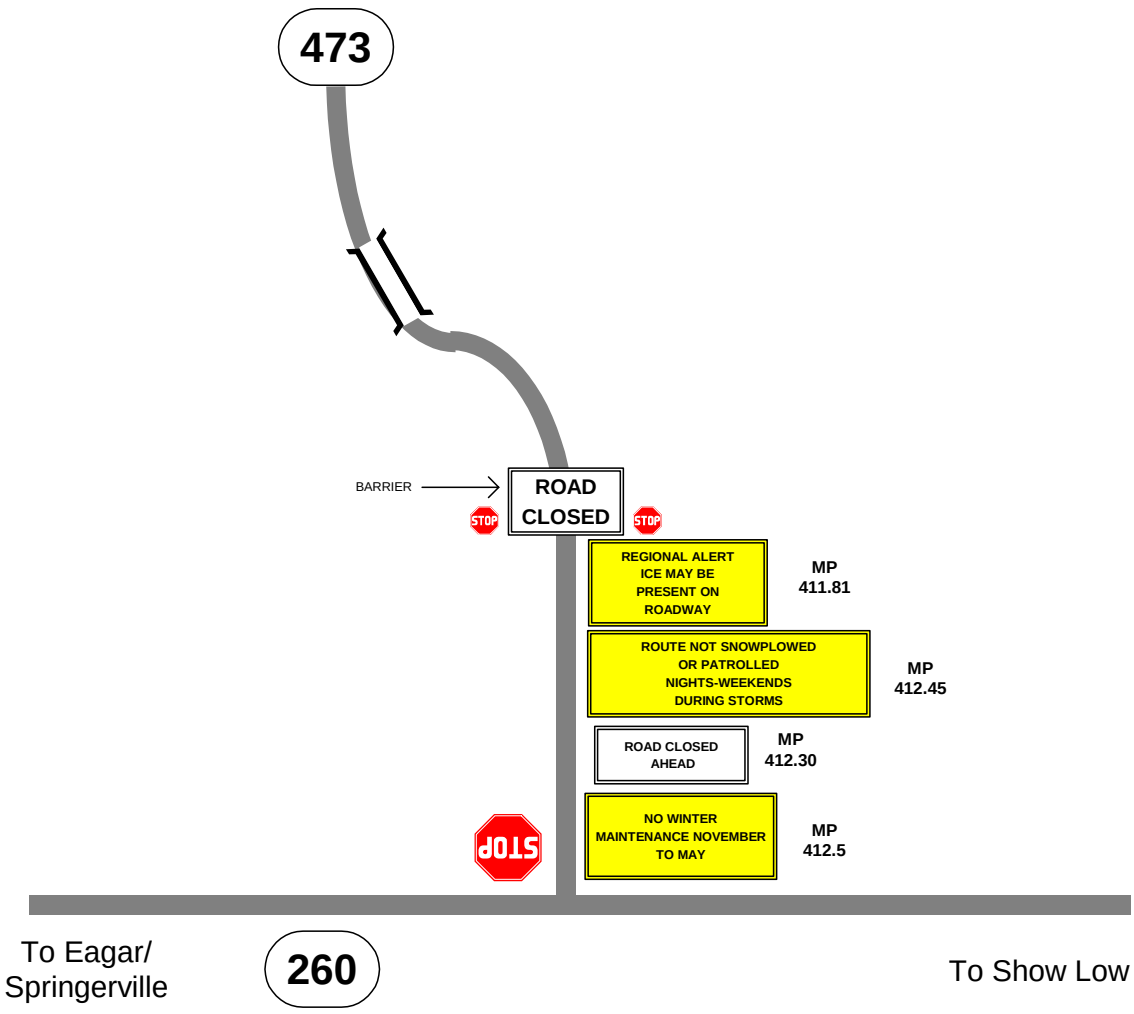
**A road closure sign will be installed on the barricades. A "ROAD CLOSED AHEAD" will be installed prior to this area.**

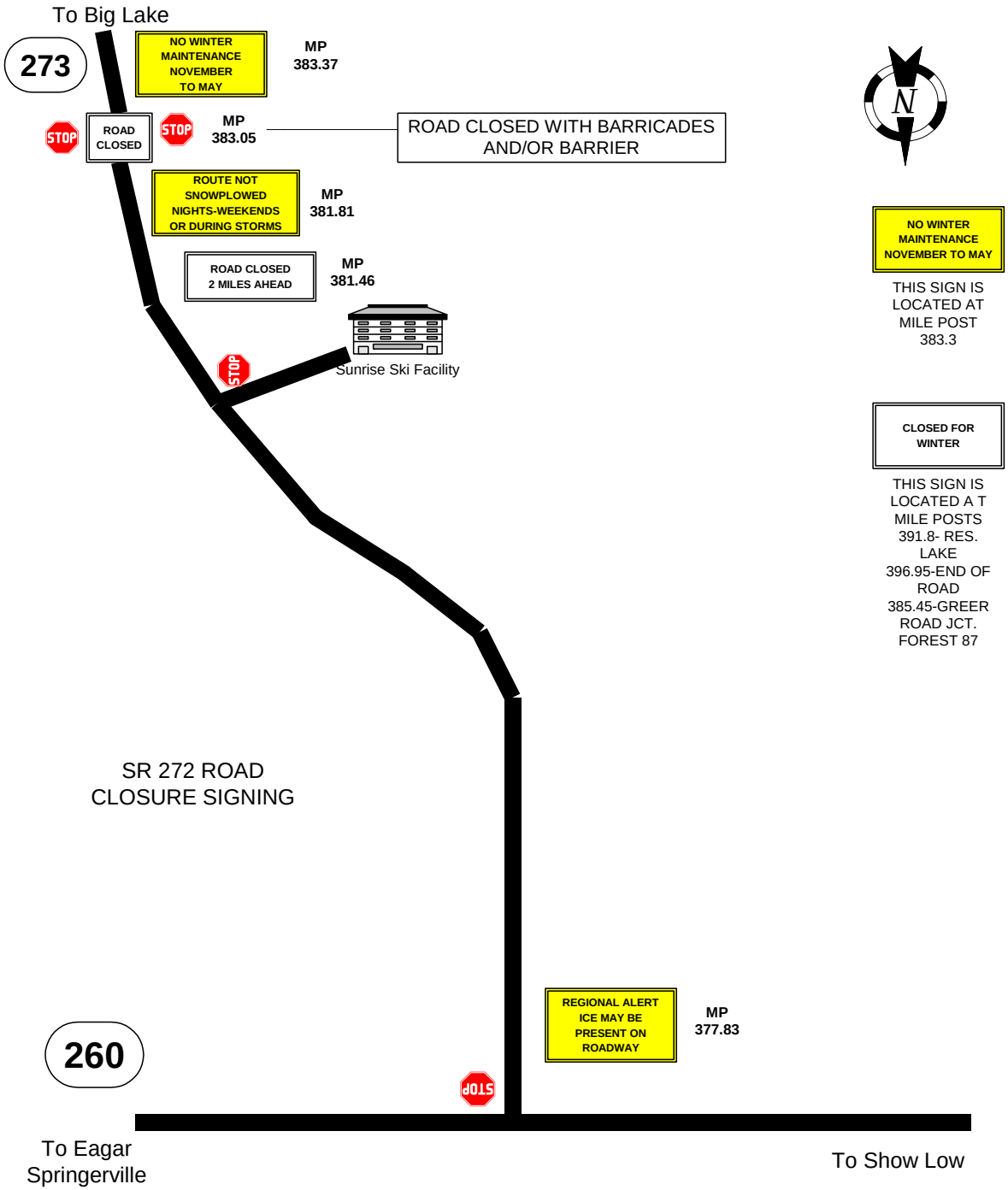
**The ROAD CLOSURE AREA should be in an area where vehicles can turn around.**

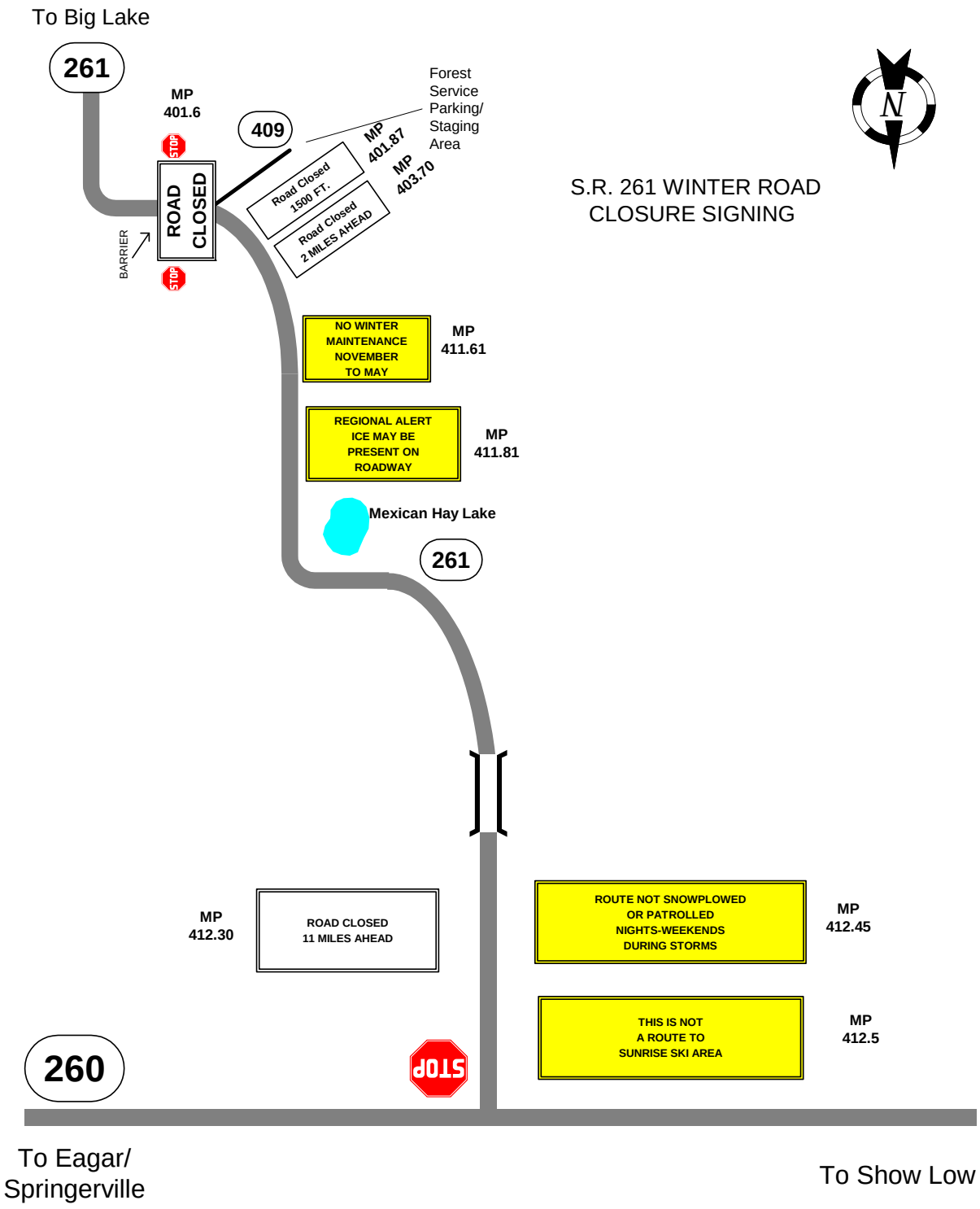
**Check the closed section for stranded motorists.**

***It should be noted that there are times when it will be impossible to follow the above procedures, due to weather conditions and a high number of required closures. However, every effort shall be made to follow this procedure as soon as possible after roads have been closed.**

S.R. 473 WINTER ROAD
CLOSURE SIGNING




To Big Lake
273
NO WINTER MAINTENANCE NOVEMBER TO MAY
MP 383.37
STOP
ROAD CLOSED
STOP
MP 383.05
ROAD CLOSED WITH BARRICADES AND/OR BARRIER
ROUTE NOT SNOWPLOWED NIGHTS-WEEKENDS OR DURING STORMS
MP 381.81
ROAD CLOSED 2 MILES AHEAD
MP 381.46
STOP
Sunrise Ski Facility
SR 272 ROAD CLOSURE SIGNING
260
REGIONAL ALERT ICE MAY BE PRESENT ON ROADWAY
MP 377.83
STOP
To Eagar Springerville
To Show Low
N
NO WINTER MAINTENANCE NOVEMBER TO MAY
THIS SIGN IS LOCATED AT MILE POST 383.3
CLOSED FOR WINTER
THIS SIGN IS LOCATED A T MILE POSTS 391.8- RES. LAKE
396.95-END OF ROAD
385.45-GREER ROAD JCT. FOREST 87


To Big Lake
261
MP
401.6
409
Forest
Service
Parking/
Staging
Area
MP
401.87
MP
403.70
Road Closed
1500 FT.
Road Closed
2 MILES AHEAD
ROAD
CLOSED
BARRIER
STOP
STOP
N
S.R. 261 WINTER ROAD
CLOSURE SIGNING
NO WINTER
MAINTENANCE
NOVEMBER
TO MAY
MP
411.61
REGIONAL ALERT
ICE MAY BE
PRESENT ON
ROADWAY
MP
411.81
Mexican Hay Lake
261
MP
412.30
ROAD CLOSED
11 MILES AHEAD
ROUTE NOT SNOWPLOWED
OR PATROLLED
NIGHTS-WEEKENDS
DURING STORMS
MP
412.45
THIS IS NOT
A ROUTE TO
SUNRISE SKI AREA
MP
412.5
260
STOP
To Eagar/
Springerville
To Show Low

# TIRE CHAIN/FOUR WHEEL DRIVE CONTROL POLICY AND RESPONSIBILITIES

1. **The determination for restriction controls will be made by ADOT with input from DPS. However, if DPS feels chains or four-wheel drive is necessary due to safety considerations, they (DPS) can turn the signs down. DPS informs the ADOT Highway Maintenance Supervisor of the date, time, route, milepost and direction of the turned down sign.**

2. **The location of chain/four-wheel drive control stations will be based on need and determination by ADOT and DPS.**

3. **ADOT will provide all signs and traffic control devices as needed (see page 20).**

4. **DPS will provide the necessary traffic enforcement personnel.**

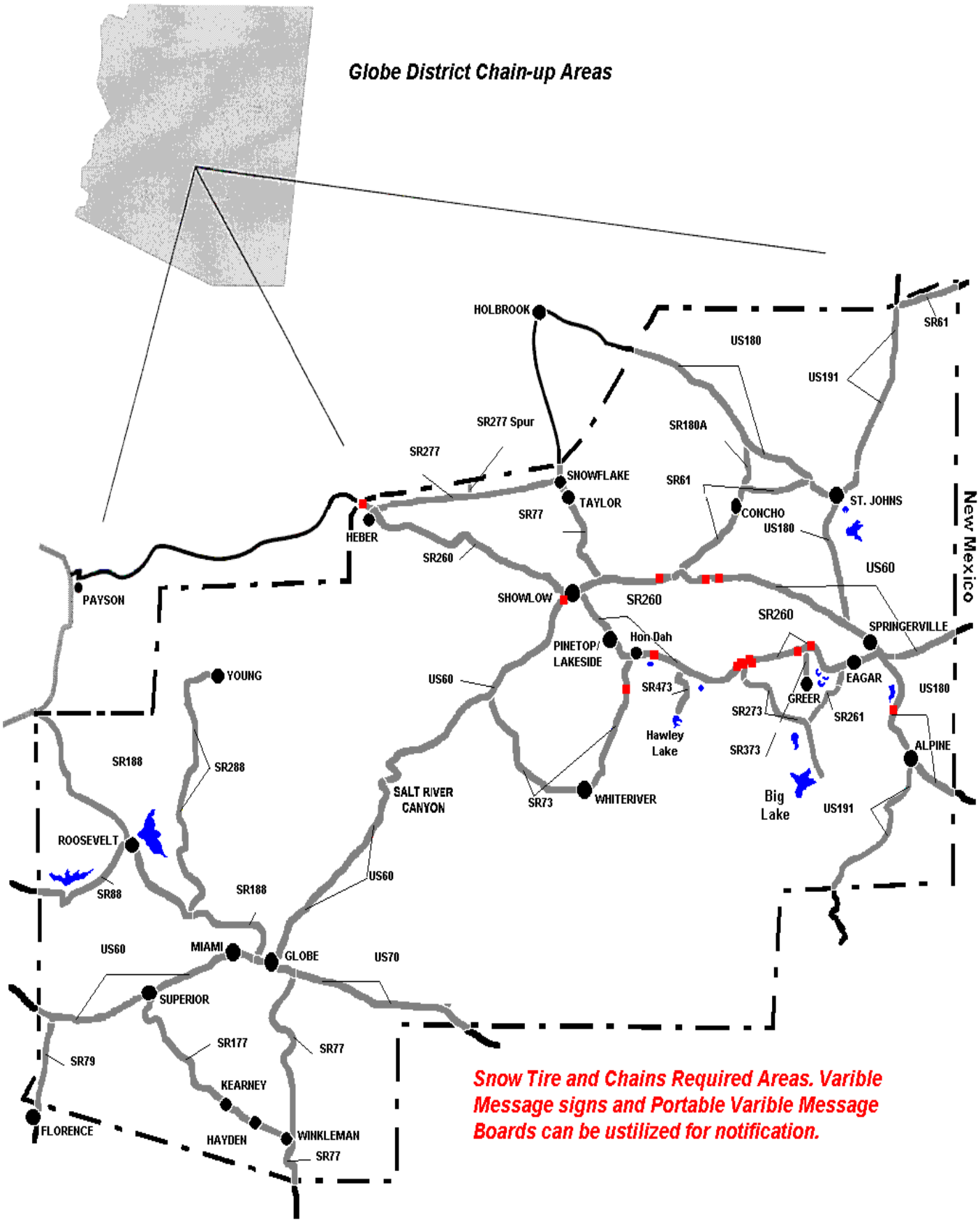
5. **ADOT will maintain the traffic control devices as needed.**

6. **Lifting of chain/four wheel requirements or moving of the station, refer to items 1&2.**

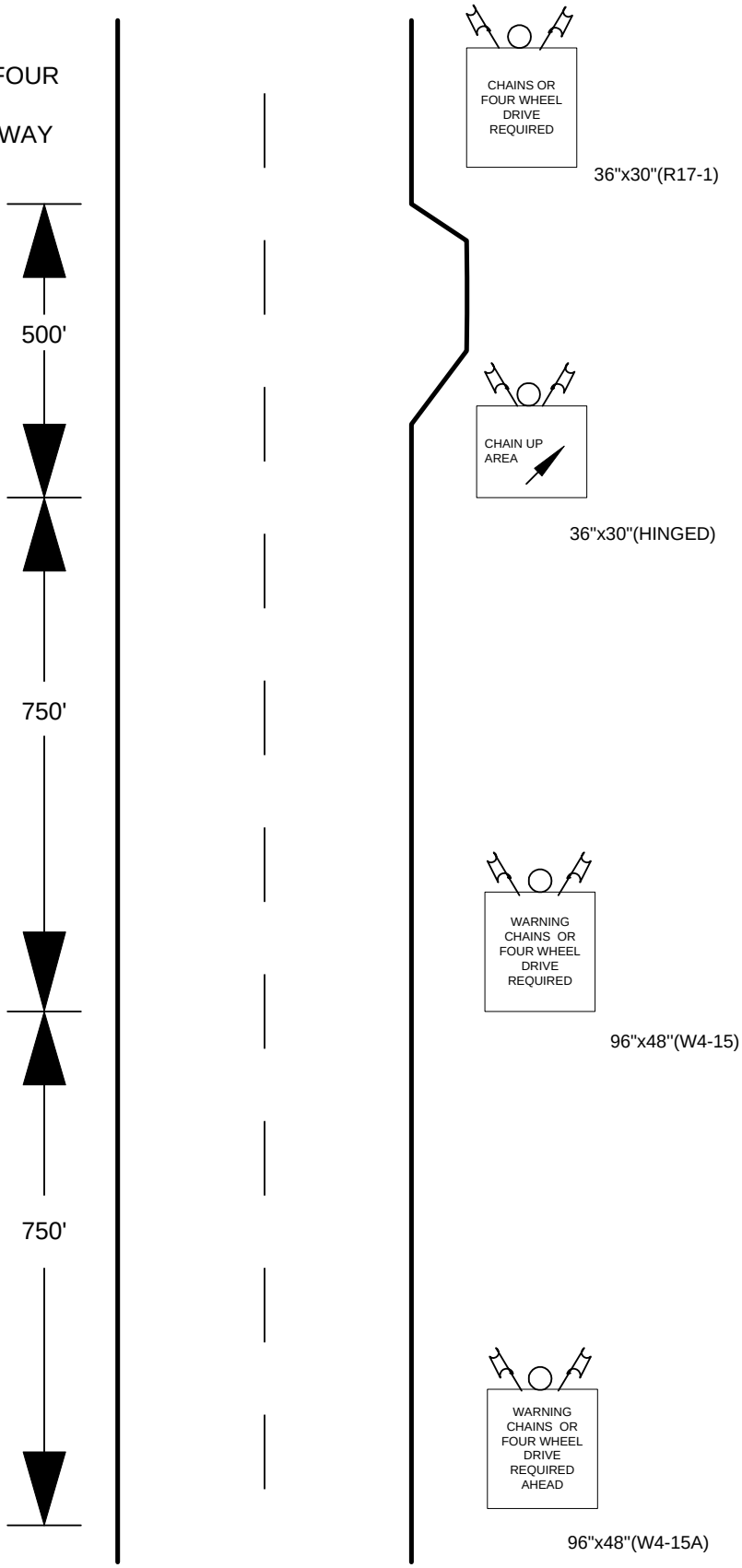
7. **All questions between ADOT and DPS will be resolved at the local level. The intent is for all problems to be resolved at the lowest possible level.**

**Current established locations are located at:**

| | | | |
|---|---|---|---|
| **US60** | **MP 363.0** | **East Bound** | **Signed** |
| **US60** | **MP 378.1** | **West Bound** | **Signed** |
| **US180** | **MP 417.0** | **East Bound** | **Un-signed** |
| **SR260** | **MP 386.7** | **West Bound** | **Signed** |
| **SR260** | **MP 384.9** | **West Bound** | **Signed** |
| **SR 260** | **MP 302.71** | **West Bound** | **Signed** |
| **SR 260** | **MP 335.63** | **West Bound** | **Signed** |
| **SR 260** | **MP 356.98** | **West Bound** | **Signed** |
| **SR 260** | **MP 356.98** | **East Bound** | **Signed** |
| **SR 260** | **MP 360.95** | **East Bound** | **Signed** |
| **SR 260** | **MP 377.10** | **East Bound** | **Signed** |
| **SR 260** | **MP 377.30** | **East Bound** | **Signed** |
| **SR 260** | **MP 377.50** | **West Bound** | **Signed** |
| **US 60** | **MP 339.53** | **West Bound** | **Signed** |
| **SR 73** | **MP 350.90** | **North Bound** | **Signed** |


Globe District Chain-up Areas
HOLBROOK
US180
SR61
US191
SR277 Spur
SR180A
SR277
SNOWFLAKE
SR61
TAYLOR
SR77
CONCHO
ST. JOHNS
US180
New Mexico
HEBER
SR260
US60
PAYSON
SHOWLOW
SR260
SR260
SPRINGERVILLE
PINETOP/
LAKESIDE
Hon-Dah
US60
SR473
EAGAR
US180
GREER
SR273
SR261
YOUNG
Hawley
Lake
SR373
ALPINE
SR188
SR288
SALT RIVER
CANYON
SR73
WHITERIVER
Big
Lake
US191
ROOSEVELT
US60
SR88
SR188
US60
MIAMI
GLOBE
US70
SUPERIOR
SR177
SR77
SR79
KEARNEY
FLORENCE
HAYDEN
WINKLEMAN
SR77
Snow Tire and Chains Required Areas. Varible
Message signs and Portable Varible Message
Boards can be ustilized for notification.

UNMANNED TIRE CHAIN/FOUR WHEEL SIGNING
TWO LANE RURAL ROADWAY



# GLOBE DISTRICT

# RESOURCE AVAILABLITY

**ORG'S 8350, 8352, 8353, 8354, 8355, 8356, 8357**

**DISTRICT ENGINEER: RICHARD POWERS**

**REGIONAL ENGINEERS: LYNN JOHNSON AND MARK GUERENA**

**MAINTENANCE SUPERINTENDENT: JOEL L. MILLER**

**MAINTENANCE ANALYST: SANDRA HENSON**

**The following are the available resources by Org for the Globe District. The listings show the Supervisors and Lead Persons name, route, milepost, equipment and personnel that are available from each ORG. Personnel and equipment will be shifted as needed depending on storm conditions.**

# AVAILABLE SNOW REMOVAL RESOURCES

## GLOBE
## ORG 8350

| | | | |
|---|---|---|---|
| **SUPERVISOR:** | **LINDY SHERRER** | **LEADMAN:** | **RICK LONG** |
| **OFFICE PHONE:** | **1-928-402-5651** | **OFFICE PHONE:** | **1-928-402-5652** |

**Equipment Operators** **10**

**Equipment**

**5-10 wheel trucks with plow and sander**
**1-6 wheel dump with plow and sander**
**2-2.5 yard front end loaders**
**1-Grader**

| ROUTE | BEGIN | END | COUNTY |
|---|---|---|---|
| SR 77 | 134.81 | 170.93 | GILA |
| SR 188 | 214.87 | 229.28 | GILA |
| US 60 | 247.07 | 292.99 | GILA |
| US 70 | 252.14 | 287.40 | GILA/GRAHAM 271.60 |

## ROOSEVELT
## ORG 8352

| | | | |
|---|---|---|---|
| **SUPERVISOR:** | **RONNIE SPEER** | **LEADMAN:** | **LANE HULBERT** |
| **OFFICE PHONE:** | **1-928-467-2282** | **OFFICE PHONE:** | **1-928-467-2282** |

**Equipment Operators** **8**

**Equipment**

**1-6 wheel dump with plow and sander**
**3-Grader**
**2-2.5 yard front end loader**
**1-Backhoe**

| ROUTE | BEGIN | END | COUNTY |
|---|---|---|---|
| SR 88 | 213.33 | 241.70 | MARICOPA/GILA 241.70 |
| SR 188 | 229.28 | 271.00 | GILA |
| SR 288 | 258.10 | 311.90 | GILA |

## SUPERIOR

## ORG 8353

| | | | |
|---|---|---|---|
| **SUPERVISOR:** | **DENNIS DODD** | **LEADPERSON:** | **MIKE SOSH** |
| **OFFICE PHONE:** | **1-520-689-2366** | **OFFICE PHONE:** | **1-520-689-2366** |

**Equipment Operators 7**

**Equipment**

**4-10 wheel dump with plow and sander**
**2-2.5 yard loader**
**1-Grader**
**1-1Ton with plow**

| ROUTE | BEGIN | END | COUNTY |
|---|---|---|---|
| SR 77 | 133.00 | 134.80 | PINAL/GILA 134.72 |
| SR 177 | 136.31 | 167.61 | GILA/PINAL 138.41 |
| US 60 | 217.61 | 247.06 | PINAL/GILA 236.10 |

## SHOW LOW
## ORG 8354

| | | | |
|---|---|---|---|
| **SUPERVISOR:** | **CECIL DEBACA** | **LEADMAN:** | **RICHARD FARNSWORTH** |
| **OFFICE PHONE:** | **1-928-537-4343** | **OFFICE PHONE:** | **1-928-537-4343** |

**Equipment Operators 11**

**Equipment**

**7-3 Axle Dump Trucks with snowplow and V box spreader attachments**
**2-2.5 Cu. Yd. Loaders**
**1-4 Cu. Yd. Loader**
**1-Grader**
**1-3500 Gallon Liquid De-icing Truck with snowplow attachment**

| ROUTE | BEGIN | END | COUNTY |
|---|---|---|---|
| SR 77 | 342.20 | 361.07 | NAVAJO |
| SR 260 | 302.73 | 347.10 | NAVAJO |
| SR 277 | 305.67 | 336.45 | NAVAJO |
| SR277(SPUR) | 321.18 | 322.38 | NAVAJO |
| US 60 | 293.0 | 353.00 | GILA/NAVAJO 316.41 |

## ST. JOHNS
## ORG 8355

**SUPERVISOR:** CLAYTON BOND **LEADMAN:** GARRY HITCHCOCK
**OFFICE PHONE:** 1-928-337-4913 **OFFICE PHONE:** 1-928-337-4913

**Equipment Operators** 8

**Equipment**

- 5-10 wheel dump with plow and sander
- 2-2.5 yard loader
- 1-Grader

| ROUTE | BEGIN | END | COUNTY |
|---|---|---|---|
| SR 61 | 352.88 | 430.26 | APACHE |
| SR 81 | 380.16 | 381.81 | APACHE |
| SR 180A | 343.10 | 354.27 | APACHE |
| US 180 | 324.86 | 394.36 | NAVAJO/APACHE 327.26 |
| US 191 | 315.55 | 344.62 | APACHE |

## SPRINGERVILLE
## ORG 8356

**SUPERVISOR:** TONY CASTILLO **LEADMAN:** JOHN FLANAGAN
**OFFICE PHONE:** 1-928-333-4495 **OFFICE PHONE:** 1-928-333-4495

**Equipment Operators** 12

**Equipment**

- 6-10 wheel dump with plow and sander
- 2-2.5 yard loader
- 1-Grader w/wing

| ROUTE | BEGIN | END | COUNTY |
|---|---|---|---|
| SR 260 | 377.46 | 398.67 | APACHE |
| SR 261 | 394.38 | 412.50 | APACHE |
| SR 373 | 385.65 | 390.21 | APACHE |
| US 60 | 353.01 | 401.97 | APACHE |
| US 180 | 400.61 | 433.26 | APACHE |
| US 191 | 225.01 | 253.74 | GREENLEE/APACHE 247.56 |
| SR 273 | 377.46 | 396.90 | APACHE |

## INDIAN PINE
## ORG 8357

| | | | |
|---|---|---|---|
| **SUPERVISOR:** | **JOYCE PADILLA** | **LEADMAN** | **JEFFERY BALK** |
| **OFFICE PHONE:** | **1-928-369-3288** | **OFFICE PHONE:** | **1-928-369-3288** |

**Equipment Operators** **5**

**Equipment**

**5-10 wheel dump with plow and sander**
**2-2.5 yard loader**
**1-Graders w/wing**
**1-Liquid De-icing truck**
**1-Snow blow**

| ROUTE | BEGIN | END | COUNTY |
|---|---|---|---|
| SR 260 | 340.11 | 377.45 | NAVAJO |
| SR 73 | 310.38 | 311.20 | NAVAJO/GILA 311.20 |
| SR 73 | 311.21 | 357.72 | GILA/NAVAJO 335.56 |
| SR 473 | 0.00 | 10.00 | APACHE |

## DISTRICT WIDE
## ORG 8369

**SUPERINTENDENT:** **JOEL MILLER**
**OFFICE PHONE:** **1-928-402-5605**

**Equipment Operators** **2**

**SHOW LOW EQUIPMENT SHOP** **OFFICE PHONE 928-537-2333**

**GLOBE EQUIPMENT SHOP** **OFFICE PHONE 928-402-5640**

# SNOW REMOVAL NOTIFICATION PROCEDURE

**The following Snow Removal Notification procedure is to be used whenever a supervisor initiates snow removal work.**

**A. See that the HCRS System is updated as road conditions change.**

**B. Keep the Globe District Office updated either by phone at 928-402-5600 or 602-712-7871 or by e-mail. Normal working hours are 8:00 AM to 5:00 PM, 5 days a week.**

**C. If any emergency or special situation arises after normal work hours that would require special attention or support you can contact the following in order of listing.**

**1. Joel L. Miller.....…….. 928-425-5335**
**2. Lynn Johnson (northern region)……..….. 928-536-7633**
**3. Mark Guerena (southern region).....……... 928-425-3963**
**4. Rick Powers.....…… 928-425-5670**

# ORG BOUNDARY LOG

**ORG 8350 (GLOBE) 928-402-5651 LINDY SHERRER**

| ROUTE | BEGIN | END | COUNTY |
|---|---|---|---|
| SR 77 | 134.81 | 170.93 | GILA |
| SR 188 | 214.87 | 229.28 | GILA |
| SR 170 | 271.06 | 275.07 | GILA |
| US 60 | 247.07 | 292.99 | GILA |
| US 70 | 252.14 | 287.40 | GILA/GRAHAM 271.60 |

**ORG 8352 (ROOSEVELT) 928-467-2282 RONNIE SPEER**

| ROUTE | BEGIN | END | COUNTY |
|---|---|---|---|
| SR 88 | 213.33 | 241.70 | MARICOPA/GILA 241.70 |
| SR 188 | 229.28 | 271.00 | GILA |
| SR 288 | 258.10 | 311.90 | GILA |

**ORG 8353 (SUPERIOR)** **520-689-2366** **DENNIS DODD**

| ROUTE | BEGIN | END | COUNTY |
|---|---|---|---|
| SR 77 | 124.00 | 134.80 | PINAL/GILA 134.72 |
| SR 177 | 136.31 | 167.61 | GILA/PINAL 138.41 |
| US 60 | 217.61 | 247.06 | PINAL/GILA 236.10 |

**ORG 8354 (SHOW LOW)** **928-537-4343** **CECIL DEBACA**

| ROUTE | BEGIN | END | COUNTY |
|---|---|---|---|
| SR 77 | 342.20 | 361.07 | NAVAJO |
| SR 260 | 302.73 | 347.10 | NAVAJO |
| SR 277 | 305.67 | 336.45 | NAVAJO |
| SR277(SPUR) | 321.18 | 322.38 | NAVAJO |
| US 60 | 293.0 | 353.00 | GILA/NAVAJO 316.41 |

**ORG 8355 (ST. JOHNS)** **928-337-4913** **CLAYTON BOND**

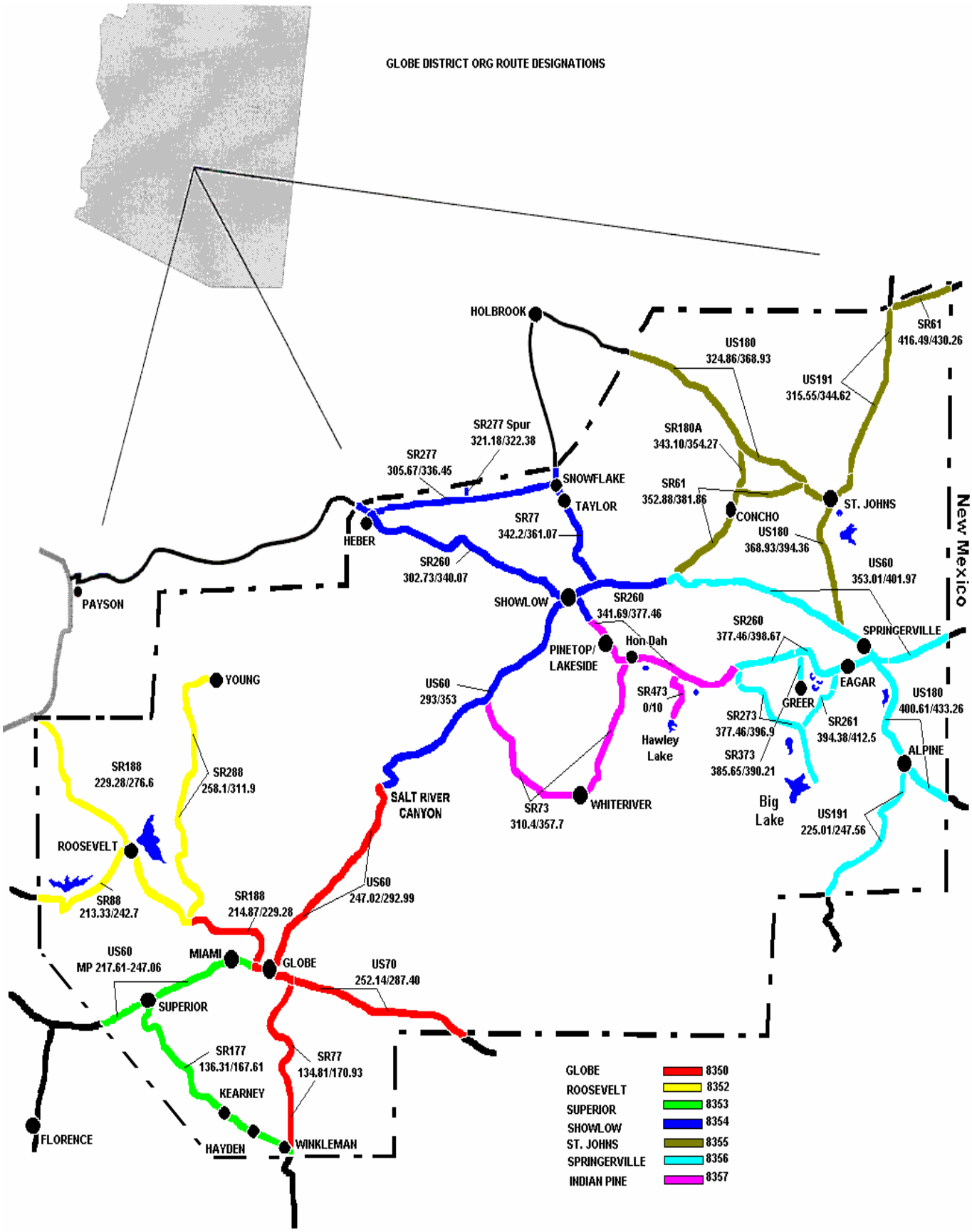
| ROUTE | BEGIN | END | COUNTY |
|---|---|---|---|
| SR 61 | 352.88 | 430.26 | APACHE |
| SR 180A | 343.10 | 354.27 | APACHE |
| US 180 | 324.86 | 394.36 | NAVAJO/APACHE 327.26 |
| US 191 | 315.55 | 344.62 | APACHE |

**ORG 8356 (SPRINGERVILLE)** **928-333-4495** **TONY CASTILLO**

| ROUTE | BEGIN | END | COUNTY |
|---|---|---|---|
| SR 260 | 377.46 | 398.67 | APACHE |
| SR 261 | 394.38 | 412.50 | APACHE |
| SR 373 | 385.65 | 390.21 | APACHE |
| US 60 | 353.01 | 401.97 | APACHE |
| US 180 | 400.61 | 433.26 | APACHE |
| US 191 | 225.01 | 253.74 | GREENLEE/APACHE 247.56 |
| SR 273 | 377.46 | 396.90 | APACHE |

**Org 8357 (INDIAN PINE)** **928-369-3288** **JOYCE PADILLA**

| ROUTE | BEGIN | END | COUNTY |
|---|---|---|---|
| SR 73 | 310.38 | 311.20 | NAVAJO/GILA 311.20 |
| SR 73 | 311.21 | 357.72 | GILA/NAVAJO 335.56 |
| SR 473 | 0.00 | 10.00 | APACHE |
| SR 260 | 347.11 | 377.45 | NAVAJO/APACHE 359.60 |


GLOBE DISTRICT ORG ROUTE DESIGNATIONS
HOLBROOK
US180
324.86/368.93
SR61
416.49/430.26
US191
315.55/344.62
SR277 Spur
321.18/322.38
SR180A
343.10/354.27
SR277
305.67/336.45
SNOWFLAKE
SR61
352.88/381.86
ST. JOHNS
TAYLOR
CONCHO
SR77
342.2/361.07
US180
368.93/394.36
HEBER
US60
353.01/401.97
SR260
302.73/340.07
PAYSON
SHOWLOW
SR260
341.69/377.46
SR260
377.46/398.67
SPRINGERVILLE
PINETOP/
LAKESIDE
Hon-Dah
EAGAR
YOUNG
US60
293/353
SR473
0/10
GREER
US180
400.61/433.26
SR273
377.46/396.9
SR261
394.38/412.5
Hawley
Lake
SR373
385.65/390.21
ALPINE
SR188
229.28/276.6
SR288
258.1/311.9
SALT RIVER
CANYON
SR73
310.4/357.7
WHITERIVER
Big
Lake
US191
225.01/247.56
ROOSEVELT
US60
247.02/292.99
SR88
213.33/242.7
SR188
214.87/229.28
US60
MP 217.61-247.06
MIAMI
GLOBE
US70
252.14/287.40
SUPERIOR
SR177
136.31/167.61
SR77
134.81/170.93
KEARNEY
FLORENCE
HAYDEN
WINKLEMAN
New Mexico
GLOBE 8350
ROOSEVELT 8352
SUPERIOR 8353
SHOWLOW 8354
ST. JOHNS 8355
SPRINGERVILLE 8356
INDIAN PINE 8357